

**Claims**

1. An apparatus in a telecommunication system for providing access to telecommunication services to subscribers at user terminals (10, 20), each of which being separately connected to at least one access point (30, 60) via high speed modems (12, 22) and a communication network (24), the at least one access point (30, 60) comprising high speed modems with filters required,  
**characterised in that**

the access point modems (50, 55) are arranged in two groups, a pool of a plurality of high speed modems (50); and multiple high speed modems (55) with direct access; and

a control means (70) is adapted to control modems (50) and filters (36, 45) during transfer of connections between the user terminals (10, 20) and the at least one access point (30, 60) from accessing the pool of modems (50) to another access point of directly accessible modems (55) whereby new access points (30, 60) are made available.

2. An apparatus in a telecommunication system according to claim 1, **characterised in that**

an access means (12, 22) is provided with a second modem enabling initial installation with a control means (70) to monitor the installation and establish a connection.

3. An apparatus in a telecommunication system according to claim 2, **characterised in that**

the control means (70) is adapted to retrieve subscriber information to individualise the established connection.

4. An apparatus in a telecommunication system according to anyone of claims 1-3, **characterised in that,**

the pool of filters (36) is connected directly to the station side (34) of a first access node (30).

5. An apparatus in a telecommunication system according to anyone of claims 1-3, **characterised in that,**

the pool of filters (36) is connected in front of at least one line card connector (65) of a second access node (60).

6. An apparatus in a telecommunication system according to anyone of preceding claims, **characterised in that,**

a management system (80) is provided to process retrieved additional user information whereby the established connection can be adapted according to user specifications.

7. A method in a telecommunication system for providing access to telecommunication services to subscribers at user terminals (10, 20), each of which being separately connected to at least one access point (30, 60) via high speed modems (12, 22) and a communication network (24), the at least one access point (30, 60) comprising high speed modems with filters required, **characterised by the steps of**

transmission of a signal from an access means (12, 22) including user terminal identity to a control means (70);

searching, by the control means (70), for an available connection path for the access means (12, 22) at an access point (40, 50);

creating, by the control means (70), a bi-directional high speed data transmission path between the user terminal (10, 20) and the at least one access point (30, 60); and

activating, by the control means (70), the transmission path between the

user terminal (10, 20) and the at least one access point (30, 60).

8. A method in a communication system according to claim 7, further **characterised by the steps of**

5 monitoring, by the control means (70), available access points (30, 60) in the pool of a plurality of high speed modems (50); and

transferring subscriber connections from one access point (30, 31, 60) in the communication system to another access point (45, 55);  
whereby access points in the pool of modems are made available for new subscribers.

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